

Energy Studies

OVERVIEW

Baisch's approach to high energy costs is a systematic study of facility energy use to determine:

- ❖ Current energy use for each portion of the process in a facility
- ❖ Minimum possible energy use for the facility
- ❖ Capital projects or operating changes to close or eliminate the gap between current and minimum levels
- ❖ The return on investment for each individual project or procedure

STUDY METHOD

The first step in the process is to determine where energy is being used currently:

- Review of energy records for at least one year
- Assemble equipment and process details
- Process flows
- Production rates
- Process temperatures
- Water usage
- Building and process ventilation/exhaust systems
- Refrigeration and process cooling systems
- Effluent treatment
- Steam and condensate system
- Electrical system

When the minimum energy uses are determined, the value of the possible reduction is calculated. This is an important step, because if the savings of a potential project is known and hurdle ROI rate has been established, the justifiable cost of a potential project can be calculated. This step will eliminate a number of projects before project development begins.

One final step in this phase is a complete review of proposed projects with plant personnel to eliminate projects that cannot be supported because of production, maintenance or environmental concerns.

BAISCH EXPERIENCE

Baisch personnel have always considered energy effectiveness in our project execution and have recently executed studies and projects where energy efficiency is the principal concern.

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RECENT ENERGY STUDIES

- ❖ **MeadWestvaco, Escanaba, MI**
RMP Energy Optimization
Water System Changes for Energy Economy
- ❖ **Wausau-Mosinee, Groveton, NH**
Mill Energy Consumption Reduction Study
- ❖ **Plainwell Tissue, Eau Claire, MI**
Mill Energy Consumption Reduction Study
- ❖ **Wausau-Mosinee, Rhinelander, WI**
Waste Water Heat Recovery
- ❖ **Simpson Paper, Plainwell, MI**
Mill Energy Reduction/Rebate Study
- ❖ **P. H. Glatfelter, Spring Grove, PA**
PCC Plant Heat Balance
- ❖ **Fraser Paper, Park Falls, WI**
Mill Water Energy Consumption Reduction Study
Mill Water/Effluent Temperature Study
- ❖ **Champion Paper - Sartell, MN**
TMP Exhaust Heat Exchange to Mill White Water
- ❖ **International Paper, Kaukauna, WI**
Optimization of Steam and Turbine Facility for Energy Economy
- ❖ **Voith Paper/SCA Tissue, Barton, AL**
New Plant Heat Balance/Energy Consumption Optimization
- ❖ **Encore Paper, South Glens Falls, NY**
Waste Water Heat Recovery
- ❖ **Sonoco, Rockton, IL**
Plant Air Balance for Energy Savings